

Utah Clean Cities Grants & Progress on I-15 Alternative Fuels Corridor

for the Energy Working Group
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Utah and Poor Air Quality Days



<http://www.ksl.com/emedial/slc/1661/166160/16616012.jpg>



<http://www.sagady.com/stuff/UtahValleySmog26Jan07.jpg>

State goals and our discussion

- **Goal: Meet ozone and PM2.5 standards and reduce greenhouse gases emissions to 2005 level by 2020**
 - Action: Implementing CNG I-15 Corridor Plan
 - Action: Working with EPA on CNG conversions
- **Goal: 20% Improvement in Energy Efficiency by 2015**
 - Action: Energy efficiency improvements in the state vehicle fleet
 - Action: Co-developed, with DAS, Think!Energy Utah, state employee energy efficiency

What is PM2.5?

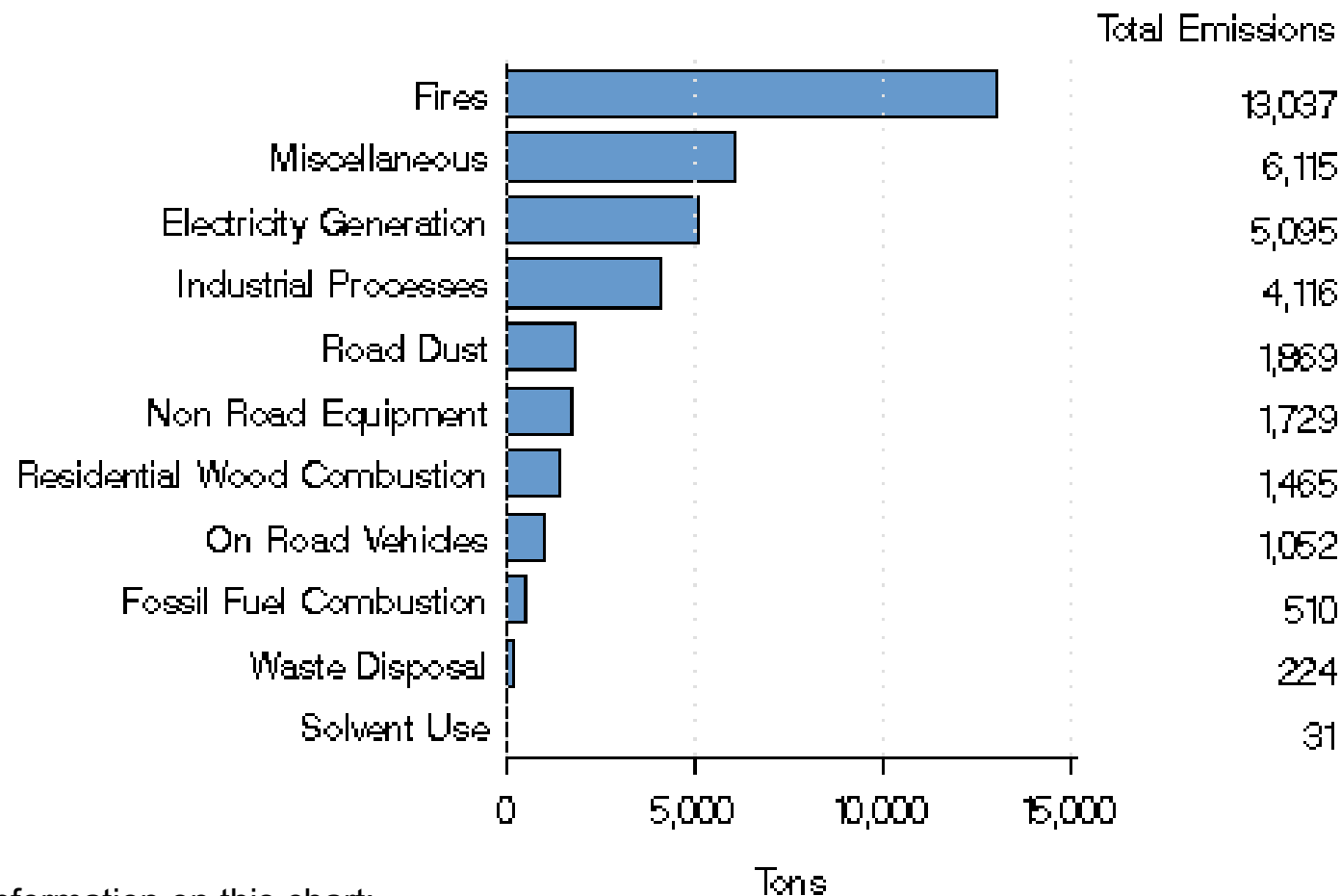
- Particles that are less than 2.5 micrometers in diameter are known as "fine" particles. They are 30 times smaller than a human hair.
- Fine particles are easily inhaled deep into the lungs where they may accumulate, react, be cleared or absorbed.

Scientific studies have linked particle pollution, especially fine particles, with a series of significant health problems.

Information from the EPA website:

<http://www.epa.gov/air/particlepollution/fastfacts.html>

PM2.5 Emissions by Source Sector in Utah in 2005



For more information on this chart:

http://www.epa.gov/cgi-bin/broker?_service=data&_debug=0&_program=dataprog_dw_do_all_emis_2005.sas&pol=231&stfips=49

Benefits of CNG vs. Gasoline

- The U.S. EPA calculated the potential benefits of CNG versus gasoline based on the inherently cleaner-burning characteristics of natural gas, summarized in Clean Alternative Fuels: Compressed Natural Gas.
 - Reduces carbon monoxide emissions 90%-97%
 - **Reduces carbon dioxide emissions 25%**
 - **Reduces nitrogen oxide emissions 35%-60%**
 - **Potentially reduces non-methane hydrocarbon emissions 50%-75%**
 - Emits fewer toxic and carcinogenic pollutants
 - **Emits little or no particulate matter** [Go back](#)

Reference: U.S. DOE website:

http://www.afdc.energy.gov/afdc/vehicles/natural_gas_emissions.html

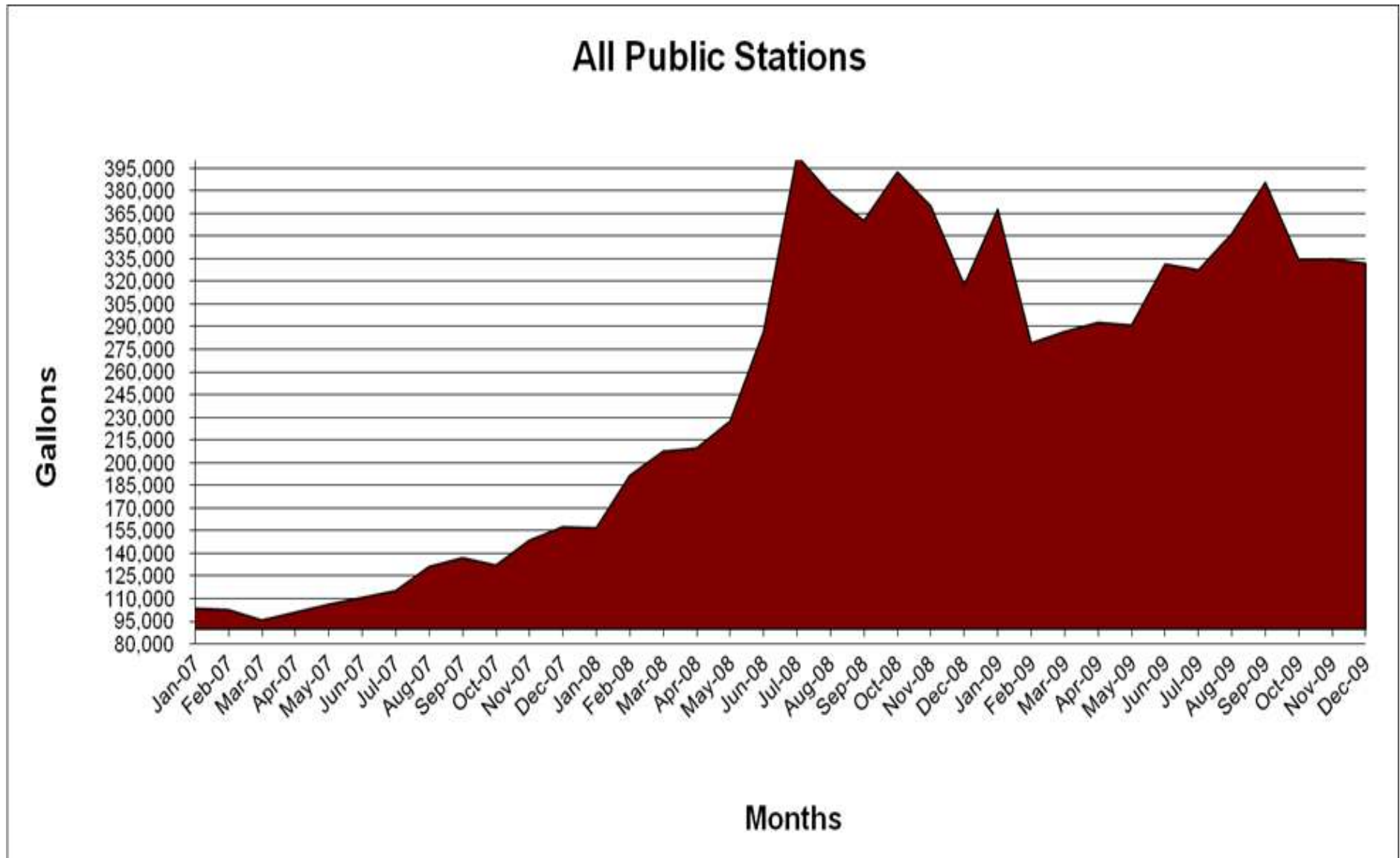
I-15 CNG Corridor



Legend:

- Existing/Upgraded CNG Stations
- New CNG Stations
- New LNG Stations
- New Bio-Diesel
- Multi-Alternative Fuel Stations
- Clean Cities Areas

Gallons of CNG dispensed at Utah's public fueling stations



Graph provided by: Questar Gas

Utah's DOE FY 09 Clean Cities Grant

- \$14 Million Funding goes towards
 - 10 new CNG stations with various owners, including the state of Utah
 - 6 CNG Upgrades (State of Utah)
 - 3 Biodiesel
 - 3 L/CNG (CH₄ Energy and UPS (2))
 - Questar Gas 18 CNG station upgrades
 - Questar Gas 6 new CNG stations
 - Incremental cost reduction for alternative fueled vehicles



Vehicle Progress

- State of Utah has purchased over 50 new vehicles (hybrid and CNG)
- University of Utah has new CNG bus
- Utah Clean Cities Coalition under contract to purchase our 2 CNG vehicles



Station Progress

- 7 CNG Station Upgrades Completed
 - Utah State University, University of Utah, Granite School District, UDOT Complex, Jordan School District, Alpine School District
 - Ogden upgrade has been started
- State's first LCNG Station under construction
- 1 new CNG Station Complete



Hurricane Chevron
natural gas
for vehicles 

open house

I-15 - Exit 16
40 North 6300 West
Hurricane, Utah
Friday, Feb. 12, 2010
11 a.m.

RSVP by responding to this e-mail by Feb. 5th.
Robin.Erickson@slcgov.com or 435-817-2441



I-15 Corridor Progress

- All of Utah's stations will be online by Spring 2011
 - This will complete the I-15 CNG corridor
 - This will create the I-15 LNG corridor for trucking in Utah
- Nevada working to add new stations
 - Adding CNG and LNG to continue the corridor
- California also adding new stations
 - Will finish the CNG and LNG corridor on I-15 from Utah to California in the next 2 years

Idle Free Awareness Week



Image from: <http://www.idlefree.utah.gov/>

- Governor Herbert, Mayor Becker, Mayor Coroon, Mayor Billings, and Mayor Godfrey all signed the Idle Free Awareness Week joint declaration on September 21, 2009 at Mountain View Elementary School.

Idle Free Awareness Week



- Every citizen can similarly improve our state's air quality if they turn off their vehicles whenever they are going to idle more than 10 seconds.

Alternative Fuel Awareness Month Declared Nov 6, 2009

Women's Expo



Governor Herbert, Mayor Becker, Mayor Billings, Mayor Corroon, and Mayor Godfrey together declared November Alternative Fuel Awareness Month.

School Bus Drivers Achievements



- In the 2008 school year 3,000 school bus drivers in Utah reduced their combined idling time by 21 minutes per day per bus.
- This produced an air quality benefit of preventing 5,000 lbs. of particulate matter emissions and improved our state's air quality.



cleartheairchallenge.org

Clear the Air Challenge



cleartheairchallenge.org

19,412 Total Trips Eliminated

=

1,085,286 Miles Saved

=

\$629,466 Saved

=

1,860,495 Pounds of Emissions Reduced



- The “Think! Energy Utah” program is a self awareness challenge to all state employees to make an impact in our energy efficiency in the following areas:
 - Our workplaces
 - Our transportation
 - Our homes

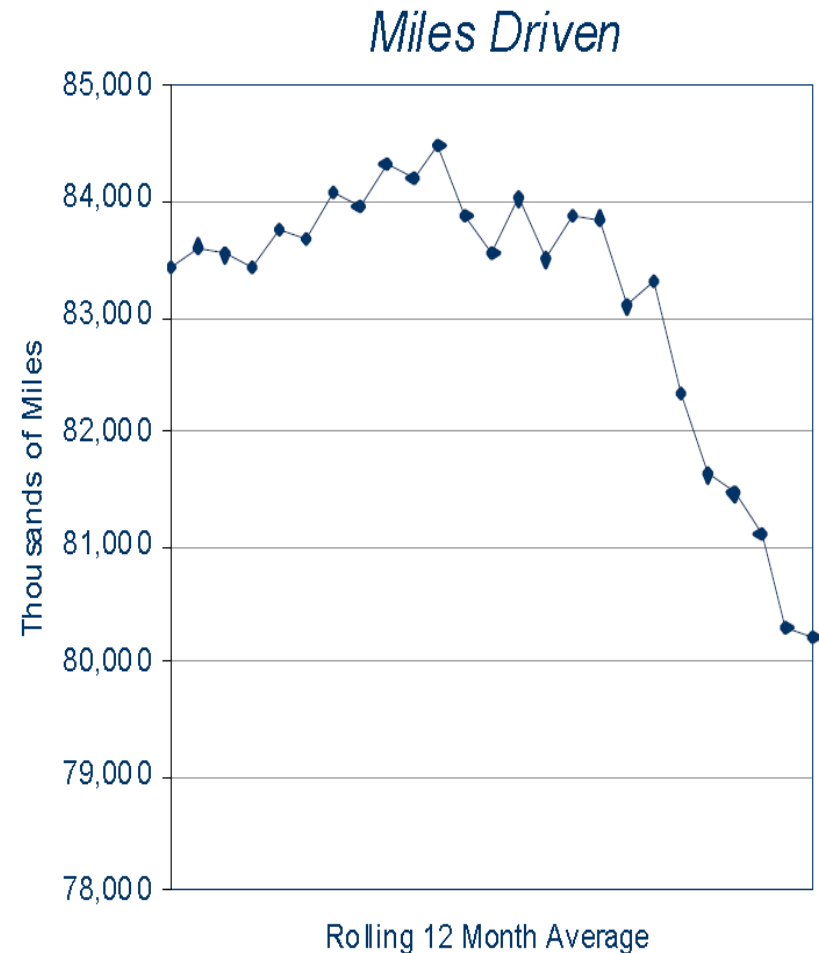
What is this program?

- Annual Program that encourages and motivates employees to be energy efficient at work, home and their communities
- Engages us to Think! Talk and Take Action to establish an energy efficient and sustainable culture
- Brings us together to work towards the common goal of sustainability
- Works towards our State's goals of: improving energy efficiency 20% by 2015.



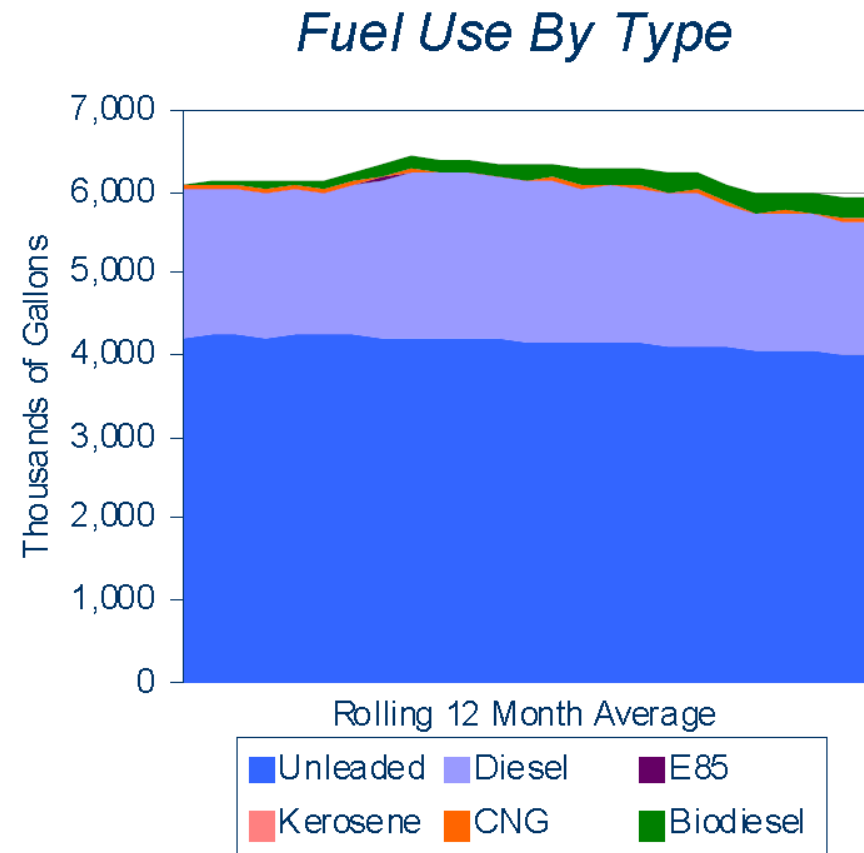
State of Utah Fleet

- Individual agencies right-sized 116 vehicles over the past 2 years.
- State vehicles traveled over 2.8 million miles less in fiscal year 2009 than in fiscal year 2007. This is reduction of nearly 3.5%.



State of Utah Fleet

- The state fuel network has increased the amount of alternative fuels available to our fleet.
- Use of biodiesel alone is up nearly tenfold from 2007.
- Alternative fuels along with reductions in miles and fuel have resulted in a CO₂ reduction of 3,700 metric tons, equal to 672 vehicles off the road.



Upcoming Events

- **Utah Energy Forum** January 21st at the City-County Building in Salt Lake City.
- **Fight for Air Climb - American Lung of Utah** February 27, 2010 at the Wells Fargo Center in Salt Lake City
- **Work Truck Show 2010**, North America's Largest Work Truck Event. March 9-10 "free admission to stakeholders"
- **SUTREC, Renewable Energy Fair** April 29, 2010 Milford High School in Milford Utah
- **Alternative Fuels & Vehicles National Conference** May 9-12, 2010 the Rio All-Suite Hotel, Las Vegas, Nevada